

R/Sir,

In order to make electronic products more sustainable following is suggested that in electrical industry there is lot of scope to replace metal/plastic with wood which is biodegradable. Some points are as given below:

1) USE of wood wherever feasible.

- a) In Ceiling/Table/Exhaust fans blades are now a days made of metal/Plastic. **It is suggested that same can be made of wood panels**
- b) In various products like wall clocks, Mixer-grinder, motorized toys outer casing could be made of wood or jute fabric.
- c) Top covers of Air-conditioners which are of plastic today may be replaced with decorative wood panels, or composite of jute/bagasee/plastic.
- d) In homes and commercial buildings, concealed wiring are using plastic pipes. This wiring is difficult to replace. Instead, open wiring on wooden batten or wooden casing should be promoted.
- e) Use of ceramic based sockets for switches, will reduce use of plastic switches. We can make it compulsory to use ceramic base sockets points for any such socket where maximum current drawn is more than 5 amperes.
- f) LED street panels are mounted in plastic casing. Since life expectancy of such LED lights is just 10-15 years, entire set is discarded and new panel is used. As such such casings should be made of wood with powder coating to protect them from rain water.
- g) Whenever state electricity department provides new connection, it should be made compulsory to have fire retardant wooden board to fix meters, switches and cut off point.

2) Energy efficiency certification for all products

- a) For all electrical products, energy star rating should be made compulsory. This will save substantial amount of energy and in turn reduce fossil fuel use in power plants. Many items in daily use like power tools, Electric Motors used in pumps, ceiling fans etc do not have any star rating.
- b) Though technology is yet to stabilize, Induction cooking is gaining acceptance in developed world due to its energy efficiency. Use of induction cooking stoves should be promoted.

3) New product for energy generation or utilize energy while exercising.

- a) As more and more people are going for gym to maintain health, it is proposed to develop in collaboration with other industries products which can use the energy spent by the people to generate electricity to run small applications. If we can develop a battery charger which can use the energy spent in gym on cycle, or press bench, this will charge inverters batteries to some extent.
- b) Piezo electric boards may be develop for energy generation as many people love skipping rope exercise. This can be used for charging batteries of small batteries.
- c) For people who love walking, shoes can be developed, which can use this energy through piezo effect to charge small batteries which can be used in various appliances like glucometers, BP meters etc, thermo scanners etc.
- d) Focus should be on Thermo-Electric generators, which could recover lot of waste heat in energy intensive factories like steel plants, Refineries, Power plants etc.